

CLAIMS:

1. A computer graphics processor comprising a model information providing unit for providing information representing a set of graphics primitives, a rasterizer capable of generating a first sequence of coordinates which coincide with a base grid associated with the primitive, a color generator for assigning a color to said first sequence of coordinates, and a display space resampler for resampling the color assigned by the color generator in the base grid for coordinates u, v to a representation in a grid associated with a display with coordinates x, y , in a first and a second transformation, carried out in a first and a second pass, and optionally including a transposition, the processor having a selection facility for selecting the order of the transformations and selecting whether to apply a transposition or not based on an evaluation of the partial derivatives
- $\frac{\partial x}{\partial u}, \frac{\partial x}{\partial v}, \frac{\partial y}{\partial u}, \frac{\partial y}{\partial v}$, two of which determine shear and two of which determine scaling in the transformations, the selection being made wherein relatively large derivatives occur as scale factors, and relatively small derivatives occur as shear factors and wherein the lowest amount of shear occurs during the second transformation.
2. Computer graphics processor according to claim 1, wherein the rasterizer rasterizes the primitive over a grid in a coordinate system that provides a 2D parameterization of the surface of the primitive.
3. Computer graphics processor according to claim 2, wherein the grid is derived from one of the texture maps.
4. Computer graphics processor according to claim 3, wherein, if more than one textures are eligible, the texture is selected with the largest area in texture space.

5. Computer graphics processor according to claim 2, wherein if no texture is associated with the primitive, a dummy grid over the surface of the primitive is chosen, by assigning dummy texture coordinates to each vertex.
- 5 6. Method for generating a computer graphics image, comprising the following steps:
- providing information representing a set of graphics primitives,
 - generating a first sequence of coordinates which coincide with a base grid associated with the primitive,
 - 10 - assigning a color to said first sequence of coordinates using information representing the graphics primitives,
 - resampling the color assigned by the color generator in the base grid for coordinates u, v to a representation in a grid associated with a display with coordinates x, y , in a first and a second pass,
 - 15 evaluating the partial derivatives $\frac{\partial x}{\partial u}, \frac{\partial x}{\partial v}, \frac{\partial y}{\partial u}, \frac{\partial y}{\partial v}$ of the coordinates in the display with respect to the coordinates in the base grid, two of which determine shear and two of which determine scaling in the transformations, the selection being made wherein relatively large derivatives occur as scale factors, and relatively small derivatives occur as shear factors and wherein the lowest amount of shear occurs during the second transformation.